

**ATTACHMENT #4**

**ENVIRONMENTAL IMPACT ANALYSIS**

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## **ENVIRONMENTAL IMPACT ANALYSIS**

This analysis describes potential environmental impacts from the expansion and redevelopment of Lexington Technology Park (LTP), the former Raytheon Corporation Headquarters on Spring Street. This proposed project represents the expansion of the campus from the currently permitted 696,600 GSF, to a total of approximately 1,076,600 GSF of building space. The expansion of the campus includes associated driveways, parking, landscaping, stormwater management features and other site improvements.

Lexington Technology Park was rezoned by Lexington Town Meeting in 2004 to a Planned Commercial District, to accommodate life science and mixed-use office/R&D and manufacturing uses. Town Meeting approval also included designation of approximately 34.5 acres of the site as Restricted Open Space which will remain as open and undeveloped space.

In 2007, an Environmental Notification Form (ENF) was filed with the Commonwealth of Massachusetts for the 696,600 GSF development and a Certificate was issued indicating no further review was required.

In 2008, a Definitive Site Development and Use Plan was approved for the 696,600 GSF development at LTP, which included new buildings designated as 200 and 400 Patriot Way.

The current development proposal within this Amended Preliminary Site Development and Use Plan is for an expansion to a total of approximately 1,076,600 GSF of building space. This proposal includes the addition of new buildings totaling 380,000 GSF, which is shown as 100 and 600 Patriot Way. The development of the two new buildings will include parking structures, which will minimize additional impervious surface coverage and impacts to the site's environmental quality.

600 Patriot Way and the associated parking garage will be constructed within the limits of the existing parking lot of 500 Patriot Way. Stormwater quality within this area will be upgraded to current best management and design standards.

100 Patriot Way will include a parking structure for vehicles associated with 100 and 200 Patriot Way.

For the expanded 380,000 GSF of new building space, the increased impervious coverage on the 95.6 acre site is less than 2.5 acres, or approximately 106,700 SF, which is less than 3% of the site's area.

## **Storm Water and Groundwater**

### **EXISTING CONDITIONS**

Lexington Technology Park's 95.6 acre site contains 18.5 acres of wetlands on-site. Approximately 90.8 acres of the site is tributary to these wetland systems.

Nearly the entire site is tributary to the Hobbs Brook Reservoir which serves as the public water supply for the City of Cambridge. As such the reservoir is protected as a Class-A water body and an Outstanding Resource Water.

The 18.5 acres of onsite wetlands are extensive, healthy and diverse. They are headwater wetlands within a partially urban, partially forested watershed. Because of the level topography, the relative maturity and species diversity of the wooded swamp, and it's size relative to the size of the watershed, this wetland system is relatively unaltered by past discharges, despite close proximity to Routes 2 and 128/95 and the LTP development.

### **RECENT DEVELOPMENT AND STORMWATER IMPROVEMENTS**

A Notice of Intent was submitted in 2007 for the construction of 200 and 400 Patriot Way and an Order of Conditions was issued in February 2008. Through the Notice of Intent process the stormwater design for the existing permitted development of 696,600 GSF was required to meet all the standards of the Massachusetts Stormwater Management Guidelines including the more restrictive design standards for water quality due to the proximity of the Hobbs Brook Reservoir as a Class-A water body and an Outstanding Resource Water.

In addition to the newly developed building sites within LTP, the recent design upgraded water quality treatment for nearly 6 acres of impervious areas of the existing development within LTP.

Groundwater recharge systems were designed for the new buildings at 200 and 400 Patriot Way, and at the request of the Conservation Commission, a recharge system was also added for the existing building at 300 Patriot Way.

Through the NOI process the applicant made a number of system upgrades based on comments from the Conservation Commission and the Cambridge Water Department in an effort to improve water quality and distribution that would emulate pre-existing conditions to benefit the on-site wetlands and the Hobbs Brook Reservoir.

### **PROPOSED CONDITIONS**

The expanded development proposal within this Amended Preliminary Site Development and Use Plan is for an expansion of new buildings totaling

380,000 GSF, and are shown as 100 and 600 Patriot Way. The development of both of the buildings will include the construction of parking structures.

The expansion project seeks to minimize impacts to the land and water resources on-site. To accomplish this, the majority of the new development will be placed in areas of the site that are or will have been previously developed. Additional parking will be primarily within parking structures. There are 947 additional parking spaces for the expanded development. Two 3-level parking structures are planned to include 1344 parking spaces, thus minimizing the net increase of impervious coverage on the site.

As a result, the increased impervious coverage on the 95.6 acre site is less than 2.5 acres, which is less than 3% of the site's area.

The stormwater design strategy for the expanded development will be to continue the type of improvements made in the recent development of 200 and 400 Patriot Way. These strategies will include:

- Designing all new drainage systems to the current Massachusetts stormwater regulations, and current best practices
- Improve water quality discharge of existing drainage systems within the site.
- Providing additional groundwater recharge.
- Provide a water quality storage volume for one-inch of runoff from contributing impervious surfaces, since the site is within the Hobbs Brook Reservoir watershed.
- Provide LID elements including bio-retention areas for additional water quality performance.
- The preservation of 36.5 acres of undisturbed land as Restricted Open Space.

## **Wildlife and Vegetation**

The project site is not located in an identified habitat of rare species according to the Massachusetts Natural Heritage Atlas 12<sup>th</sup> edition.

The proposed development is mostly within pre-developed land. The overall site development has been designed to increase groundwater recharge and increase high quality discharge to the on-site wetlands to model predevelopment conditions.

## **Air Quality**

The expanded project will be subject to MEPA review including an analysis of greenhouse gas emissions, which identifies measures to avoid, minimize or mitigate such emissions.

No individual air quality permits are anticipated, but if required the project will obtain the appropriate permits.

## **Noise**

Noise impacts from the additional buildings will be minimized by the use of noise reduction measures including sound barrier screen walls, equipment selection, and other methods of reducing noise.

Particular attention will be given to the proximity of the abutting residential properties.

The buildings will be designed to meet the requirements of Massachusetts DEP noise regulation and the Lexington Noise Ordinance.

## **Historical and Archaeological**

Symmes Maini & McKee Associates reviewed Massachusetts Historical Commission files on March 8, 2005, and found no Historic Assets of the Commonwealth and no Archaeological Assets of the Commonwealth mapped in the project site.

SMMA was assisted by MHC staff at Massachusetts Historical Commission in locating the State Register of Historic Places, Inventory of Historic Assets of the Commonwealth and Inventory of Archaeological Assets of the Commonwealth.

A letter was sent on July 27, 2007 requesting written confirmation from the Massachusetts Historical Commission. On August 20, 2007, MHC responded stating "it has been determined that this project is unlikely to affect significant historic or archaeological resources.

Additionally, the ENF submitted for this development received a Certificate from the Commonwealth of Massachusetts stating no additional review was required. The ENF did not generate any comments pertaining to historic or archaeological assets.